AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently amended) The method of claim ~~1~~ 6, further comprising providing an output through a user interface responsive to said clinical acceptability evaluation.

3. (Currently amended) The method of claim 2, wherein the step of providing an output includes alerting ~~the~~ a user based on said clinical acceptability evaluation.

4. (Currently amended) The method of claim 2, wherein the step of providing an output includes ~~altering~~ alerting the user interface based on said clinical acceptability evaluation.

5. (Currently amended) The method of claim 4, wherein the step of ~~altering~~ alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.

6. (Currently amended) ~~The method of claim 1~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

receiving a data stream from an analyte sensor, including one or more sensor data points;

receiving reference data from a reference analyte monitor, including one or more reference data points; and

evaluating the clinical acceptability at least one of said reference and sensor analyte data using substantially time corresponding reference or sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, wherein the step of evaluating the clinical acceptability includes using one of a Clarke Error Grid, a mean absolute difference calculation, a rate of change calculation, a consensus grid, and a standard clinical acceptance test.

7. (Currently amended) ~~The method of claim 1~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

receiving a data stream from an analyte sensor, including one or more sensor data points;

receiving reference data from a reference analyte monitor, including one or more reference data points; and

evaluating the clinical acceptability at least one of said reference and sensor analyte data using substantially time corresponding reference or sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further comprising requesting additional reference data if said clinical acceptability evaluation determines clinical unacceptability.

8. (Original) The method of claim 7, further comprising repeating the clinical acceptability evaluation step for said additional reference data.

9. (Currently amended) ~~The method of claim 1~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

receiving a data stream from an analyte sensor, including one or more sensor data points;

receiving reference data from a reference analyte monitor, including one or more reference data points; and

evaluating the clinical acceptability at least one of said reference and sensor analyte data using substantially time corresponding reference or sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further comprising a step of matching reference data to substantially time corresponding sensor data to form a matched pair after the clinical acceptability evaluation step.

10. (Canceled).

11. (Currently amended) The ~~system~~ method of claim ~~10~~ 15, further comprising means for providing an output based through a user interface responsive to said clinical acceptability evaluation.

12. (Currently amended) The ~~system~~ method of claim 11, wherein said means for providing an output includes means for alerting ~~the~~ a user based on said clinical acceptability evaluation.

13. (Currently amended) The ~~system~~ method of claim 11, wherein said means for providing an output includes means for ~~altering~~ alerting the user interface based on said clinical acceptability evaluation.

14. (Currently amended) The ~~system~~ method of claim 13, wherein said means for ~~altering~~ alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.

15. (Currently amended) ~~The system of claim 10~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

means for receiving a data stream from an analyte sensor, a plurality of time-spaced sensor data points;

means for receiving reference data from a reference analyte monitor, including one or more reference data points; and

means for evaluating the clinical acceptability of at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, wherein said means for evaluating the clinical acceptability includes using one of a Clarke Error Grid, a mean absolute difference calculation, a rate of change calculation, a consensus grid, and a standard clinical acceptance test.

16. (Currently amended) ~~The system of claim 10~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

means for receiving a data stream from an analyte sensor, a plurality of time-spaced sensor data points;

means for receiving reference data from a reference analyte monitor, including one or more reference data points; and

means for evaluating the clinical acceptability of at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further

comprising means for requesting additional reference data if said clinical acceptability evaluation determines clinical unacceptability.

17. (Currently amended) The ~~system~~ method of claim 16, further comprising means for repeated the clinical acceptability evaluation for said additional reference data.

18. (Currently amended) ~~The system of claim 10~~ A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

means for receiving a data stream from an analyte sensor, a plurality of time-spaced sensor data points;

means for receiving reference data from a reference analyte monitor, including one or more reference data points; and

means for evaluating the clinical acceptability of at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further comprising means for matching reference data to substantially time corresponding sensor data to form a matched data pair after the clinical acceptability evaluation.

19-20. (Canceled)

21. (Currently amended) The computer system of claim ~~20~~ 25, wherein said interface control module alerts ~~the~~ a user based on said clinical acceptability evaluation.

22. (Currently amended) The computer system of claim ~~20~~ 25, wherein said interface control module ~~alters~~ alerts the user interface based on said clinical acceptability evaluation.

23. (Currently amended) The computer system of claim 22, wherein said interface control module ~~alters~~ alerts the user interface by providing at least one of providing color-coded information, trend information, directional information, and fail-safe information.

24. (Currently amended) ~~The computer system of claim 19~~ A computer system for evaluating clinical acceptability of at least one of reference and sensor analyte data, the computer system comprising:

a sensor data receiving module that receives a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a reference data receiving module that receives reference data from a reference analyte monitor, including one or more reference data points; and

a clinical acceptability evaluation module that evaluates at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, wherein said clinical acceptability evaluation module uses one of a Clarke Error Grid, a mean absolute difference calculation, a rate of change calculation, a consensus grid, and a standard clinical acceptance test to evaluate clinical acceptability.

25. (Currently amended) ~~The computer system of claim 20~~ A computer system for evaluating clinical acceptability of at least one of reference and sensor analyte data, the computer system comprising:

a sensor data receiving module that receives a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a reference data receiving module that receives reference data from a reference analyte monitor, including one or more reference data points; and

a clinical acceptability evaluation module that evaluates at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further comprising an interface control module that controls a user interface based on said clinical acceptability evaluation, wherein said interface control module that requests additional reference data if said clinical acceptability evaluation determines clinical unacceptability.

26. (Original) The computer system of claim 25, wherein said interface control module evaluates said additional reference data using clinical acceptability evaluation module.

27. (Currently amended) ~~The computer system of claim 19~~ A computer system for evaluating clinical acceptability of at least one of reference and sensor analyte data, the computer system comprising:

a sensor data receiving module that receives a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a reference data receiving module that receives reference data from a reference analyte monitor, including one or more reference data points; and

a clinical acceptability evaluation module that evaluates at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, wherein said at least one of said reference and sensor analyte data is evaluated for deviation from its substantially time corresponding reference or sensor data and clinical risk associated with that deviation based on the glucose value indicated by at least one of said sensor and reference data, further comprising a data matching module that matches clinically acceptable reference data to substantially time corresponding clinically acceptable sensor data to form a matched pair.

28. (Canceled)

29. (Original) A method for evaluating clinical acceptability of at least one of reference and sensor analyte data, the method comprising:

receiving a data stream from an analyte sensor, including one or more sensor data points;

receiving reference data from a reference analyte monitor, including one or more reference data points; and

evaluating the clinical acceptability at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data, including using one of a Clarke Error Grid, a mean absolute difference calculation, a rate of change calculation, and a consensus grid.

30. (Canceled)

31. (Original) A computer system for evaluating clinical acceptability of at least one of reference and sensor analyte data, the computer system comprising:

a sensor data module that receives a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor;

a reference input module that receives reference data from a reference analyte monitor, including one or more reference data points; and

a clinical module that evaluates at least one of said reference and sensor analyte data with substantially time corresponding reference and sensor data, wherein said

clinical module uses one of a Clarke Error Grid, a mean absolute difference calculation, a rate of change calculation, a consensus grid, and a standard clinical acceptance test to evaluate clinical acceptability.

32. (Currently amended) A computer system for evaluating clinical acceptability of at least one of reference and sensor analyte data, the computer system comprising:

a sensor data module that receives a data stream comprising a plurality of time spaced sensor data points from a substantially continuous analyte sensor via a receiver;

a reference input module that receives reference data from a reference analyte monitor, including one or more reference data points; and

a clinical module that uses a Clarke Error Grid to evaluate the clinical acceptability at least one of said reference and sensor analyte data using substantially time corresponding reference and sensor data; and

a fail-safe module that controls ~~the~~ a user interface responsive to the clinical module evaluating clinical unacceptability.

33. (Canceled)

34. (New) The method of claim 7, further comprising providing an output through a user interface responsive to said clinical acceptability evaluation.

35. (New) The method of claim 34, wherein the step of providing an output includes alerting a user based on said clinical acceptability evaluation.

36. (New) The method of claim 34, wherein the step of providing an output includes alerting the user interface based on said clinical acceptability evaluation.

37. (New) The method of claim 36, wherein the step of alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.

38. (New) The method of claim 9, further comprising providing an output through a user interface responsive to said clinical acceptability evaluation.

39. (New) The method of claim 38, wherein the step of providing an output includes alerting a user based on said clinical acceptability evaluation.

40. (New) The method of claim 38, wherein the step of providing an output includes alerting the user interface based on said clinical acceptability evaluation.

41. (New) The method of claim 40, wherein the step of alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.

42. (New) The method of claim 16, further comprising means for providing an output based through a user interface responsive to said clinical acceptability evaluation.

43. (New) The method of claim 42, wherein said means for providing an output includes means for alerting a user based on said clinical acceptability evaluation.

44. (New) The method of claim 42, wherein said means for providing an output includes means for alerting the user interface based on said clinical acceptability evaluation.

45. (New) The method of claim 44, wherein said means for alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.

46. (New) The method of claim 18, further comprising means for providing an output based through a user interface responsive to said clinical acceptability evaluation.

47. (New) The method of claim 46, wherein said means for providing an output includes means for alerting a user based on said clinical acceptability evaluation.

48. (New) The method of claim 46, wherein said means for providing an output includes means for alerting the user interface based on said clinical acceptability evaluation.

49. (New) The method of claim 48, wherein said means for alerting the user interface includes at least one of providing color-coded information, trend information, directional information, and fail-safe information.